STATIONARY SOURCE PERMIT TO OPERATE

This permit includes designated equipment subject to
New Source Performance Standards (NSPS).
This permit supersedes your permit dated September 2, 2005

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Southside Virginia Training Center
P.O. Box 4030
Petersburg, Virginia 23803
Registration No.: 50052
County Plant ID No.: 730-0001

is authorized to operate

a mental health facility which operates boilers, water heaters, furnaces, storage tanks, and emergency generators

located at

0.5 miles North of Interstate 85, No. 63 on U.S. Route 1 in Petersburg, Virginia

in accordance with the Conditions of this permit.

Approved on **Draft**

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David K. Paylor
Director, Department of Environmental Quality

Permit consists of 16 pages.
Permit Conditions 1 to 39.

INTRODUCTION

This permit approval is based on the permit application dated August 31, 2006, and supplemental information dated September 29, 2006. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.PERMIT CONDITIONS - the regulatory reference or authority for each condition is listed in parentheses ( ) after each condition.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of:

Equipment installed prior to the date of this permit:

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
Point 006 Emergency Generators			
B43	Gasoline Onan Model DQDAC (2006)	300 kW/21.8 GPH	43
B113	Diesel Onan Model DQDAA (2006)	250 kW/17.8 GPH	113
B114	Diesel Onan Model DQFAA (2006)	750 KW 52.7 GPH	114
Point 014 West Campus			
39	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	6
40	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	6
41	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	78
42	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	78
43	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	78
44	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	121
45	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	121
46	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	122
47	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	122
48	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	123
49	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	123

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
50	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	124
51	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	124
52	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	125
53	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	125
54	Natural Gas Lochinvar Boiler Model KBN500 (2006)	.5 mmBTU/hr	125

Equipment permitted prior to the date of this permit:

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
Point 001 Boiler			
1-03	Natural gas/Distillate Oil Fired Cleaver Brooks Boiler (2004) (NSPS Dc)	28.60 mmBtu/hr	52
Point 002 Boiler			
2-03	Natural gas/Distillate Oil Fired Cleaver Brooks Boiler (2004) (NSPS Dc)	28.60 mmBtu/hr	52
Point 003 Boiler			
3-03	Natural gas/Distillate Oil Fired Cleaver Brooks Boiler (2004) (NSPS Dc)	28.60 mmBtu/hr	52
Point 004 Boiler			
4-03	Natural gas/Distillate Oil Fired Cleaver Brooks Boiler (2004) (NSPS Dc)	28.60 mmBtu/hr	52
Point 005 Northern Campus			
4	Natural Gas Boiler OL102485 Cleaver Brooks, (2002)	6.28 mmBtu/hr	1
5	Natural Gas/Distillate Oil Fired Cleaver Brooks Boiler L84192, (1988)	6.28 mmBtu/hr	1
6	Natural Gas Boiler National U.S. Steel, (pre-1972)	1.8 mmBtu/hr	3
7	Natural Gas Boiler National U.S. Steel, (pre-1972)	1.8 mmBtu/hr	4
8	Natural Gas Boiler National U.S. Steel, (pre-1972)	1.8 mmBtu/hr	9
9	Natural Gas Boiler National U.S. Steel, (pre-1972)	1.8 mmBtu/hr	10
Point 006 Emergency Generators			
B3	Diesel Onan Model DFAB (2004)	230 kW/15.6 GPH	3
B4	Diesel Onan Model DFAB (2004)	230 kW/15.6 GPH	4
B9	Diesel Onan Model DGFC (2003)	200 kW/14.5 GPH	9
B10	Diesel Onan Model DGFC (2003)	200 kW/14.5 GPH	10
B39	Diesel Caterpiller Model SR4B (1995)	1,000 kW/77 GPH	39
B40	Diesel Onan Model 30-ODDA-15R (1994)	30 kW/2.5 GPH	40/41
B50	Diesel Onan Model DGCB 2004	60 kW/2.9 GPH	50
B52	Diesel Kohler Model 500REOV 2004	500 kW/37.2 GPH	52
B59	Diesel Kohler Model 50-ROZJ61 (1999)	50 kW/4.5 GPH	59
B65	Diesel Kohler Model 160R0201 2004	150 kW/17.5 GPH	65
B66	Gasoline Onan Model 4.0CCK3CR-1R (pre 1982)	4 kW/.57 GPH	66
B67	Diesel Onan Model DKAC 2004	15 kW/1.5 GPH	67
B69	Diesel Onan Model 3.0DJA-3CR (pre 1982)	3 kW/5GPH	69
B78	Diesel Kohler Model 150-ROZJ01 (1999)	150 kW/11.1 GPH	78
B81	Gasoline Onan Model 4.0 CCK-3CR (pre 1982)	4 kW/.57 GPH	81
B82	LPG Kolar Model 4RN61 (pre 1982)	4 kW/.74 GPH	82
B93	Diesel Denyo Model DCA-220-SSK (1999)	194 kW/12.3 GPH	93
B94	Diesel Denyo Model DCA-220-SSK (1999)	194 kW/12.3 GPH	94
B95	Diesel Denyo Model DCA-220-SSK (1999)	194 kW/12.3 GPH	95

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
B96	Diesel Denyo Model DCA-220-SSK (1999)	194 kW/12.3 GPH	96
B110	Diesel Cummins Model GS-400 (1976)	400 kW/30 GPH	110
B111	Diesel Onan Model DFCB (2005)	300 kW/22.5 GPH	111
B112	Diesel Denyo Model DCA-400-SSK (1999)	352 kW/20.4 GPH	112
B120	Diesel Kohler Model 100-RO2J (2000)	100 kW/7.4 GPH	120
B121	Diesel Kohler Model 125-ROZ281 (1988)	125 kW/8.3 GPH	121
B122	Diesel Kohler Model 125-ROZ281 (1988)	125 kW8.3 GPH	122
B123	Diesel Kohler Model 125-ROZ281 (1988)	125 kW8.3 GPH	123
B124	Diesel Kohler Model 230-ROZ81 (1985)	230 kW/18.5 GPH	124
B125	Diesel Onan Model DAFC (2000)	250 kW/19 GPH	125
Point 007 Cottage Units (natural gas furnaces, water heaters, emergency generators)			
11	Natural Gas Weil-McLain Furnace Model JR15A-10	0.12 mmBtu/hr	59
12	Natural Gas York Furnace Model P4USD20N12001A (1995)	0.12 mmBtu/hr	12
13	Natural Gas York Furnace Model P4USD20N12001A (1995)	0.12 mmBtu/hr	13
14	Natural Gas York Furnace Model P4USD20N12001A (1995)	0.12 mmBtu/hr	14
15	Natural Gas York Furnace Model P4USD20N12001A (1995)	0.12 mmBtu/hr	15
16	Natural Gas York Furnace Model P4USD20N12001A (1995)	0.12 mmBtu/hr	16
17	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	17
18	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	18
19	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	19
20	Natural Gas York Furnace Model P3UCD20N09101A (1995)	0.12 mmBtu/hr	20
21	Natural Gas York Furnace Model P3UCD20N09101A (1995)	0.12 mmBtu/hr	21
22	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	22
23	Natural Gas York Furnace Model P3UCD20N09101A (1995)	0.12 mmBtu/hr	23
24	Natural Gas York Furnace Model P4USD20N12001A (1995)	0.12 mmBtu/hr	24
25	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	25
26	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	26
27	Natural Gas York Furnace Model P3UCD20N09101A (1995)	0.12 mmBtu/hr	27
28	Natural Gas York Furnace Model P3UDC20N09101A (1995)	0.12 mmBtu/hr	28
29	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	29
30	Natural Gas York Furnace Model P2MPD20N09601C (1995)	0.12 mmBtu/hr	30
31	Natural Gas York Furnace Model P3UCD20N09101A (1995)	0.12 mmBtu/hr	31
32	Natural Gas York Furnace Model P2MPD20N09601A (1995)	0.12 mmBtu/hr	32
33	Natural Gas York Furnace Model P3UDC20N09101A (1995)	0.12 mmBtu/hr	33
34	Natural Gas York Furnace model P2MPD20N09601A (1995)	0.12 mmBtu/hr	34
35	Natural Gas York Furnace Model P2MPD20N09601C (1995)	0.12 mmBtu/hr	35
36	Natural Gas York Furnace Model P4HUD20N10401A (1995)	0.12 mmBtu/hr	36
37	Natural Gas York Furnace Model P2MPD20N09601D (1995)	0.12 mmBtu/hr	37
38	Natural Gas York Furnace Model P2MPD20N09601C (1995)	0.12 mmBtu/hr)	38
WH12	Natural Gas Water Heater State Model PRX100NORT6	.083 mmBtu/hr	12
WH13	Natural Gas Water Heater State Model PRX100NORT6	.083 mmBtu/hr	13
WH14	Natural Gas Water Heater Rheem-Rudd Model G67-114	.114 mmBtu/hr	14
WH15	Natural Gas Water Heater Rheem-Rudd Model G67-114	.114 mmBtu/hr	15
WH16	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	16
WH17	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	17
WH18	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	18
WH19	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	19
WH20	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	20

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
WH21	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	21
WH22	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	22
WH23	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	23
WH24	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	24
WH25	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	25
WH26	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	26
WH27	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	27
WH28	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	28
WH29	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	29
WH30	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	30
WH31	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	31
WH32	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	32
WH33	Natural Gas Water Heater Rheem Model RFD120-67	.114 mmBtu/hr	33
WH34	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	34
WH35	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	35
WH36	Natural Gas Water Heater State Model PRX100NORT6	.083 mmBtu/hr	36
WH37	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	37
WH38	Natural Gas Water Heater Rheem-Rudd Model 667-114	.114 mmBtu/hr	38
B12	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	12
B13	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	13
B14	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	14
B15	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	15
B16	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	16
B17	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	17
B18	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	18
B19	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	19
B20	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	20
B21	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	21
B22	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	22
B23	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	23
B24	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	24
B25	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	25
B26	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	26
B27	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	27
B28	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	28
B29	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	29
B30	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	30
B31	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	31
B32	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	32
B33	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	33
B34	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	34
B35	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	35
B36	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	36
B37	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442CFH	37
B38	NG Emergency Generator Generac Model ESP-25 #009960 (1999)	25 kW/ 442 CFH	38
Point 008 Gasoline Dispensing Tank			
B69T	Fixed Roof Fiberglass - UST- Gasoline (Dispensing)	10,000 gallons	69
Point 009 Diesel Dispensing Tank			

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
B69TA	Fixed Roof Fiberglass - UST- Diesel Fuel (Dispensing)	2,500 gallons	69
Point 010 Boiler Plant Distillate TAnk			
T1-03	Fixed Roof Vertical – AST – No. 2 Diesel Fuel (NSPS Kb)	80,000 gallons	52
Point 011 Diesel Fuel Tanks for Emergency Generators			
B1T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Boiler #5)	550 gallons	1
B3T	Fixed Roof Gen. base – AST - No. 2 Diesel Fuel (Emergency Generator)	420 gallons	3
B4T	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	420 gallons	4
B5T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	275 gallons	5
B9T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	350 gallons	9
B10T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	350 gallons	10
B39T	Fixed Roof Fiberglass - UST - No. 2 Diesel Fuel (Emergency Generator)	4,000 gallons	39
B40T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	275 gallons	40
B43T	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	1200 gallons	43
B50T	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	145 gallons	50
B52T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	660 gallons	52
B59T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	210 gallons	59
B65T	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	300 gallons	65
B67T	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	50 gallons	67
B69TB	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	5 gallons	69
B78T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	250 gallons	78
B93T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	93
B93TA	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	100 gallons	93
B94T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	94
B94TA	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	100 gallons	94
B95T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	95
B95TA	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	100 gallons	95
B96T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	96
B96TA	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	100 gallons	96
B110T	Fixed Roof Fiberglass - UST - No. 2 Diesel Fuel (Emergency Generator)	2,500 gallons	110
B111T	Fixed Roof Gen. base – AST – No. 2 Diesel Fuel (Emergency Generator)	600 gallons	111
B112T	Fixed Roof Fiberglass - UST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	112
B112TA	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	112
B112TB	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	110 gallons	112

Ref. No.	Equipment Description	Rated Capacity	Bldg. No.
B113T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	1200 gallons	113
B114T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	2000 gallons	114
B120T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	200 gallons	120
B121T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	300 gallons	121
B122T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	300 gallons	122
B123T	Fixed Roof Gen. base - AST - No. 2 Diesel Fuel (Emergency Generator)	300 gallons	123
B124T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	124
B125T	Fixed Roof Horizontal - AST - No. 2 Diesel Fuel (Emergency Generator)	550 gallons	125
Point 012 Gasoline Tanks for Emergency Generators			
B43T	Fixed Roof Horizontal – AST – Gasoline (Emergency Generator)	5 gallons	43
B66T	Fixed Roof Horizontal – AST – Gasoline (Emergency Generator)	5 gallons	66
B81T	Fixed Roof Horizontal – AST – Gasoline (Emergency Generator)	5 gallons	81
Point 013 Liquid Petroleum Gas Tank for Emergency Generator			
B82T	Fixed Roof Horizontal – AST – LPG (Emergency Generator)	120 gallons	82

Equipment exempt from permitting:

OWS-01-03	**No. 2 fuel oil-water separator at boiler plant (unloading station)**
Point 014	**State Model SDV75 7ONE Water Heaters (Two units)**

(9 VAC 5-80-800)

2. **Monitoring Devices** - The Cleaver Brooks boilers (Unit Reference Nos. 1-03, 2-03, 3-03 and 4-03) shall be equipped with meters to record No. 2 distillate fuel oil and natural gas consumption. Each meter shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each meter shall be provided with adequate access for inspection and shall be in operation when the boilers are operating.
(9 VAC 5-80-850)

3. **Monitoring Device Observation** - The meters used to continuously measure or record the use of natural gas and No. 2 distillate fuel oil for Unit Reference Nos. 1-03, 2-03, 3-03 and 4-03 shall be observed by the permittee with a frequency as recommended by the manufacturer **or** sufficient to ensure good performance of the meters. The permittee shall keep a log of the continuously recorded usage from the meters.
(9 VAC 5-80-850)

4. **Emission Controls -** Nitrogen oxide (NO_x) emissions from the four Cleaver Brooks boilers (Unit Reference Nos, 1-03, 2-03, 3-03, 4-03) shall be controlled by low NO_x burners.
(9 VAC 5-50-260)

OPERATING/EMISSION LIMITATIONS

5. **Fuel** - The **approved fuel** for the following pieces of equipment is **natural gas**. A change in the fuel may require a permit to modify and operate.

Ref. No.	Unit Description
4	Natural Gas Boiler OL102485 Cleaver Brooks, (2002)
6	Natural Gas Boiler National U.S. Steel, (pre-1972)
7	Natural Gas Boiler National U.S. Steel, (pre-1972)
8	Natural Gas Boiler National U.S. Steel, (pre-1972)
9	Natural Gas Boiler National U.S. Steel, (pre-1972)
11 through 38	Furnaces
WH12 through WH38	Water Heaters

(9 VAC 5-80-850)

6. **Fuels** - The approved primary and backup fuels for the five Cleaver Brooks boilers, (Unit Reference Nos. 1-03, 2-03, 3-03, 4-03 and unit 5) are natural gas as the primary fuel and No. 2 distillate fuel oil to be used as backup fuel. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)

7. **Fuels -** The approved fuels for the 58 assorted emergency generators are as follows:

No. 2 Diesel Fuel Oil - Unit Reference Nos. B3, B4, B9, B10, B39, B40, B50, B52, B59, B65, B67, B69, B78, B93, B94, B95, B96, B110, B111, B112, B114, B120, B121, B122, B123, B124, and B125.
Natural Gas - Unit Reference Nos.B12 through B38.
Gasoline - Unit Reference Nos.B43 B66 and B81.
LPG – Unit Reference No. B82

A change in fuel may require a permit to modify and operate.
(9 VAC 5-80-850)

8. **Stored Fuel** – The approved fuels to be stored in the various tanks shall be as follows

Fuel Type	Tanks
No. 2 Fuel Oil	T1-03, B69TA, Point 011 (Diesel Emergency Generator Tanks)
Gasoline	B69T, B43T, B66T, B81T
LPG	B82T

9. **Fuel Specifications** - The No. 2 distillate oil, diesel, and natural gas shall meet the specifications below:

DISTILLATE OIL and DIESEL: which meets the ASTM D396 specification for numbers 1 or 2 fuel oil - maximum sulfur content per shipment 0.5%**.**

NATURAL GAS: Minimum heat content 1,000 Btu/cf HHV.

(9 VAC 5-80-850, 9 VAC 5-80-1180)

10. **Fuel Throughput (Points 001, 002, 003, 004)**– The four Cleaver Brooks boilers (Unit Reference Nos. 1-03, 2-03, 3-03, and 4-03) shall **each** consume no more than 188,073 gal/yr of distillate oil and 104.29 mmcf/yr of natural gas, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-850)

11. **Fuel Throughput (Point 005 North Campus)**– The following equipment **combined** shall consume no more than 15,000 gal/yr of distillate oil and 26.7 mmcf/yr of natural gas, calculated monthly as the sum of each consecutive 12-month period.

Unit Ref. No.	Description (North Campus)
4	Natural Gas Fired Cleaver Brooks Boiler OL 102485
5	Natural Gas/No. 2 Oil Fired Cleaver Brooks Boiler L84192
6	Natural Gas Fired U.S. Steel Boiler
7	Natural Gas Fired U.S. Steel Boiler
8	Natural Gas Fired U.S. Steel Boiler
9	Natural Gas Fired U.S. Steel Boiler

(9 VAC 5-50-850)

12. **Fuel Throughput (Point 006 Emergency Generators)** – The emergency generators **combined** shall consume no more than:

Fuel Type	Annual Throughput Limit
Gasoline	0.86 kgals/yr
Diesel Fuel	205.20 kgals/yr
LPG	0.37 kgals/yr

Fuel throughput shall be calculated each calendar quarter as the sum of each consecutive four-quarter period.
(9 VAC 5-50-850)

13. **Fuel Throughput (Point 007 Cottage Units)** – The furnaces, water heaters and emergency generators which make up the Cottage Units (Point 007) **combined** shall consume no more than 11.96 mmcf/yr of natural gas, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-850)

14. **Fuel Throughput (Point 008 Dispensing)** - Gasoline storage tank dispensing to vehicles (Unit Reference No. B69T) shall dispense no more than 60,000 gallons per year and shall be calculated monthly as the sum of each consecutive 12-month period.

(9 VAC 5-80-850)

15. **Fuel Throughput (Point 009 Dispensing)** – Diesel storage tank dispensing to vehicles (Unit Reference No. B69TA) shall dispense no more than 35,000 gallons per year and shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-850)

16. **Fuel Throughput (Point 010 Main boiler fuel tank)** – The throughput of No. 2 distillate oil through the boiler fuel tank (Unit Reference No. T1-03) shall not exceed 773.1 kgals/yr, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-850)

17. **Fuel Throughput (Point 011 Diesel Generator fuel tanks)** – The combined throughput of No. 2 diesel fuel oil through the tanks supplying the diesel generators (Point 011) shall not exceed 205.20 kgals/yr, calculated each calendar quarter as the sum of each consecutive four-quarter period.
(9 VAC 5-80-850)

18. **Fuel Throughput (Point 014 West Campus)** – The combined throughput of natural gas to the natural gas fired boilers which make up West Campus (Point 014) shall not exceed 5.66 mmcf/yr of natural gas, calculated monthly as the sum of each consecutive 12-month period.

19. **Emission Limits** – Following are the emission limits for this facility:

Point No.	PM10 lb/hr	PM10 TPY	CO lb/hr	CO TPY	NOx lb/hr	NOx TPY	SO2 lb/hr	SO2 TPY	VOC lb/hr	VOC TPY	Pb lb/hr	Pb TPY
001	0.7	0.9	2.0	2.9	5.5	4.3	14.8	6.8	0.9	1.3	0.000313	0.000143
002	0.7	0.9	2.0	2.9	5.5	4.3	14.8	6.8	0.9	1.3	0.000313	0.000143
003	0.7	0.9	2.0	2.9	5.5	4.3	14.8	6.8	0.9	1.3	0.000313	0.000143
004	0.7	0.9	2.0	2.9	5.5	4.3	14.8	6.8	0.9	1.3	0.000313	0.000143
005	0.3	0.1	2.0	1.2	3.6	1.5	6.5	0.5	0.2	0.1	0.000001	0.000007
006	20.0	5.0	74.7	18.6	284.6	71.0	18.6	4.7	23.7	5.9	-	-
007	0.1	0.1	1.5	0.5	1.8	0.6	0.1	0.1	0.1	0.1	0.000009	0.000003
008	-	-	-	-	-	-	-	-	77.0	0.1	-	-
009	-	-	-	-	-	-	-	-	0.1	0.1	-	-
010									1.6	.1		
011	-	-	-	-	-	-	-	-	0.4	0.1	-	-
012	-	-	-	-	-	-	-	-	0.2	0.1	-	-
013	-	-	-	-	-	-	-	-	-	-	-	-
014	-	-	-	.3	-	.3	-	-	-	-	-	-
Facility Total	23.2	8.5	86.8	31.7	312.6	90.5	84.1	32.6	106.5	11.1	.00127	0.000580

(9 VAC 5-80-850)

20. **Fuel Certification** - The permittee shall obtain a certification from each fuel supplier with each shipment of No. 2 distillate oil. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier;

b. The date on which the fuel shipment was received;

c. The volume of fuel delivered in the shipment;

d. A statement that the No 2 distillate fuel oil received complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil.

e. The sulfur content of each shipment of fuel.

(9 VAC 5-80-850, 9 VAC 5-170-160, and 9 VAC 5-50-410)

21. **Visible Emission Limit** - Visible emissions from the four National U.S. Steel boilers (Unit Reference Nos.6, 7, 8 and 9) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 reference 40 CFR 60, Appendix A. This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850)

22. **Visible Emission Limit -** Visible emissions from the Cleaver Brooks boilers (Unit Reference Nos.1-03, 2-03, 3-03, 4-03, 4 and 5) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-Article 6 and 9 VAC 5-50-260)

23. **Visible Emission Limit -** Visible emissions from the emergency generators, furnaces and water heaters (Points 006 and 007) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-Article 6 and 9 VAC 5-50-260)

24. **Operating and Training Procedures** – All boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-170-160)

25. **Requirements by Reference -** Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Condition 2 shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc and 40 CFR 60, Subpart Kb.
(9 VAC 5-50-400 and 9 VAC 5-50-410)

NOTIFICATIONS

26. **Initial Notifications** - The permittee shall furnish written notification to the Piedmont Regional Office of:

    a. The actual date on which construction of each of the three Emergency Generators (Unit Reference Nos. B43, B113 & B114) and for each of the West Campus Boilers (Unit Reference Nos.LB6A, LB6B, LB78A-C, LB121A, LB121B, LB122A, LB122B, LB123A, LB123B, LB124A, LB124B, LB125A-C) has commenced within 30 days after such date.

    b. The anticipated start-up date of each of the three Emergency Generators (Unit Reference Nos. B43, B113 & B114) and for each of the West Campus Boilers (Unit Reference Nos.LB6A, LB6B, LB78A-C, LB121A, LB121B, LB122A, LB122B, LB123A, LB123B, LB124A, LB124B, LB125A-C),

    c. The actual start-up date postmarked within 15 days after such date of each of the three Emergency Generators (Unit Reference Nos. B43, B113 & B114) and for each of the West Campus Boilers (Unit Reference Nos.LB6A, LB6B, LB78A-C, LB121A, LB121B, LB122A, LB122B, LB123A, LB123B, LB124A, LB124B, LB125A-C),

    d. The design heat input capacity and identification of fuels to be combusted should be included in the notifications referenced in items a through d above.

    (9 VAC 5-50-50)

27. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Piedmont Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify Piedmont Region in writing. (9 VAC 5-20-180 C)

RECORDS AND REPORTING

28. **On Site Records -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. Daily, monthly and annual throughput of No. 2 distillate fuel oil or alternate records as approved in writing by EPA, Region III for the Cleaver Brooks boilers and associated fuel oil tank (Points 001, 002, 003, 004 and 010). Annual throughput shall be calculated monthly as

the sum of each consecutive 12-month period

b. Daily, monthly and annual throughput of natural gas or alternate records as approved in writing by EPA, Region III for the Cleaver Brooks boilers (Points 001, 002, 003, and 004). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period

c. Monthly and annual throughput of natural gas and No. 2 distillate fuel oil to the North Campus units (Point 005). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period

d. Quarterly and annual throughput of No. 2 diesel fuel oil to the diesel emergency generators and through their associated tanks (Points 006 and 011). Annual throughput shall be calculated quarterly as the sum of each consecutive four-quarter period.

e. Quarterly and annual throughput of gasoline to the gasoline emergency generators and through their associated tanks (Points 006 and 012). Annual throughput shall be calculated quarterly as the sum of each consecutive four-quarter period.

f. Quarterly and annual throughput of LPG to the LPG emergency generator and through its associated tank (Points 006 and 013). Annual throughput shall be calculated quarterly as the sum of each consecutive four-quarter period.

g. Monthly and annual throughput of natural gas to the water heaters, furnaces and natural gas emergency generators in the Cottage Units (Point 007). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period

h. Monthly and annual throughput of gasoline through the gasoline dispensing tank (Point 008). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period

i. Monthly and annual throughput of diesel fuel through the diesel fuel dispensing tank (Point 009). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period

j. Scheduled and unscheduled maintenance and operator training.

k. All fuel supplier certifications.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-50-50 and 9 VAC 5-80-900)

29. **Semi Annual Reports** - The permittee shall submit fuel quality reports to the Director, Piedmont Region within 30 days after the end of each six month period (January through June and July through December) for the NSPS Dc boilers (Unit Reference Nos. 1-03, 2-03, 3-03, 4-03)). If no

shipments of distillate oil were received during the calendar semi annual period, the semi annual report shall consist of the dates included in the semi annual period and a statement that no oil was received during the semi annual period. If distillate oil was received during the calendar quarter, the reports shall include:

a. Dates included in the calendar quarter,

b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the calendar quarter from each fuel supplier that includes the information specified in Condition 21 for each shipment of distillate oil, and

c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility.

(9 VAC 5-50-50 and 9 VAC 5-170-160)

30. **Test/Monitoring Ports -** The permitted facility shall be modified so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-50-30 F)

GENERAL CONDITIONS

31. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9 VAC 5-170-130)

32. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the Piedmont Regional Office of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited

to, the following information:

a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;

b. The expected length of time that the air pollution control equipment will be out of service;

c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;

d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-20-180 B)

33. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Piedmont Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Piedmont Regional Office in writing.
(9 VAC 5-20-180 C)

34. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation at a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I)

35. **Maintenance/Operating Procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training

provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20 E)

36. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

    a. Knowingly makes material misstatements in the application for this permit or any amendments to it;

    b. Fails to comply with the terms or conditions of this permit;

    c. Fails to comply with any emission standards applicable to the equipment listed in Condition 2;

    d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;

    e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;

    f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5, Chapter 80.
    (9 VAC 5-80-1010)

37. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Piedmont Regional Office of the change of ownership within 30 days of the transfer.
    (9 VAC 5-80-940)

38. **Registration/Update** - Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.
    (9 VAC 5-80-900)

39. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
    (9 VAC 5-80-860 D)